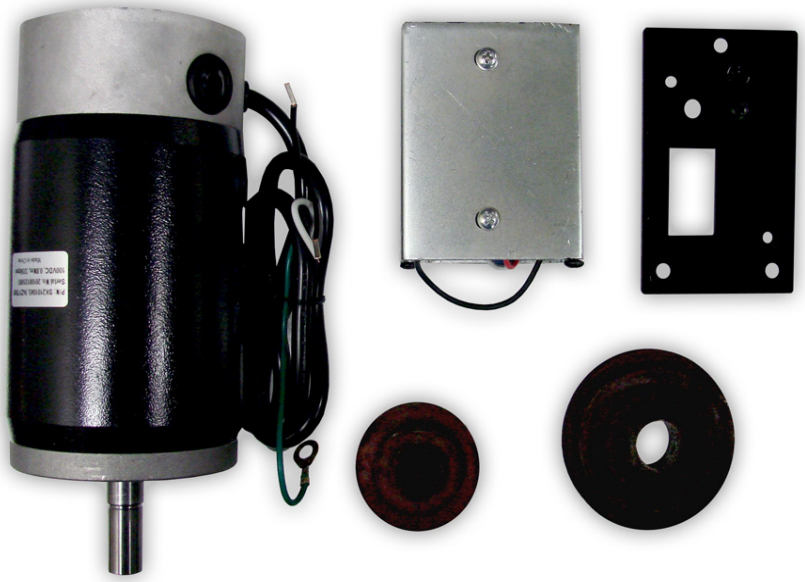
Mini Lathe Variable Speed Kit
Model: 79-100VS
(Designed to Fit Model #70-100 Mini Lathe)

RIKON POWER TOOLS

Owner's Manual



Record the serial number and date of purchase in your manual for future reference.

Serial number: _____

Date of purchase: _____

For more information:

www.rikontools.com or info@rikontools.com

For Parts or Questions:

techsupport@rikontools.com or 877-884-5167

Part #79-100VSM2

Index

1. GENERAL INFORMATION
1.1 FOREWORD

2. MACHINE DESCRIPTION
2.1 COMPONENTS
2.2 RECOMMENDED PROTECTIVE CLOTHING
2.3 NOISE EMISSION
2.4 PRESCRIBED USE OF THE MACHINE
2.5 HAZARDS
2.6 SAFETY INSTRUCTION FOR MINI LATHE

3. INSTALLATION
3.1 UNINSTALL THE OLD SWITCH PLATE
3.2 UNINSTALL THE TERMINALS
3.3 UNINSTALL STRAIN RELIEF
3.4 UNINSTALL BELT AND MOTOR
3.5 UNINSTALL THE OLD MOTOR PULLEY AND MOUNTING PLATE
3.6 INSTALL MOUNTING PLATE AND NEW MOTOR PULLEY TO NEW MOTOR
3.7 UNINSTALL OLD SPINDLE PULLEY
3.8 INSTALL NEW SPINDLE PULLEY
3.9 INSTALL THE NEW PC BOARD BOX
3.10 CONNECT TERMINALS
3.11 FIX PC BOARD TO BOX
3.12 INSTALL NEW SWITCH PLATE
3.13 WIRE CONNECTION TO SWITCH
3.14 INSTALL SWITCH PLATE TO HEADSTOCK

1. General Information

1.1 FOREWORD

This manual must be read and understood before operating the machine. This will provide a better working knowledge of the machine, for increased safety and to obtain the best results.

2. Machine Description

2.1 When opening the package of the Speed Kit, you will find the components shown below. Don't start to assemble the Speed Kit if any components are missing.

1

2

3

4

5

1 Motor Pulley
2 Spindle Pulley
3 Switch plate
4 Pc Board with box
5 Motor

2.2 RECOMMENDED PROTECTIVE CLOTHING

• Non-slip footwear is recommended.
• Do not wear loose clothing, neckties or jewellery; they can be caught in moving parts.
• Roll up long sleeves above the elbow.
• Wear protective hair covering to contain long hair.

2.3 NOISE EMISSION

The measurements of noise, in the working position and during operation, were carried out under the standard ISO 7960 Annex B and C:

Instantaneous acoustic pressure:

Sound power level(no load)	<98dB(A)
Sound power level(load)	<107dB(A)
Sound Pressure level(no load)	<89dB(A)
Sound Pressure level(load)	<98dB(A)

Constant K=4 dB measured in accordance with EN ISO 3746:1995

The figures quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of the workforce include the characteristics of the work room and the other sources of noise etc. i.e. the number of machines and other adjacent processes. Also the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

2.4 PRESCRIBED USE OF THE MACHINE

This machine is intended for turning between centers and face plate turning of solid woods. The permissible workpiece dimensions must be observed (see Technical Specification).
Any other use is not as specified. Unspecified use, modification of the machine or use of parts not tested and approved by the equipment manufacturer can cause unforeseen damage.

2.5 HAZARDS

ATTENTION Mini lathe still present risks that cannot be eliminated by the manufacturer. Therefore the user must be aware that wood working machines are dangerous if not used with care and all safety precautions adhered to.

2.6 SAFETY INSTRUCTIONS FOR MINI LATHES

A mini lathe is a tool which due to operator carelessness, cause serious personal injury. It is therefore strongly recommended you read and observe:

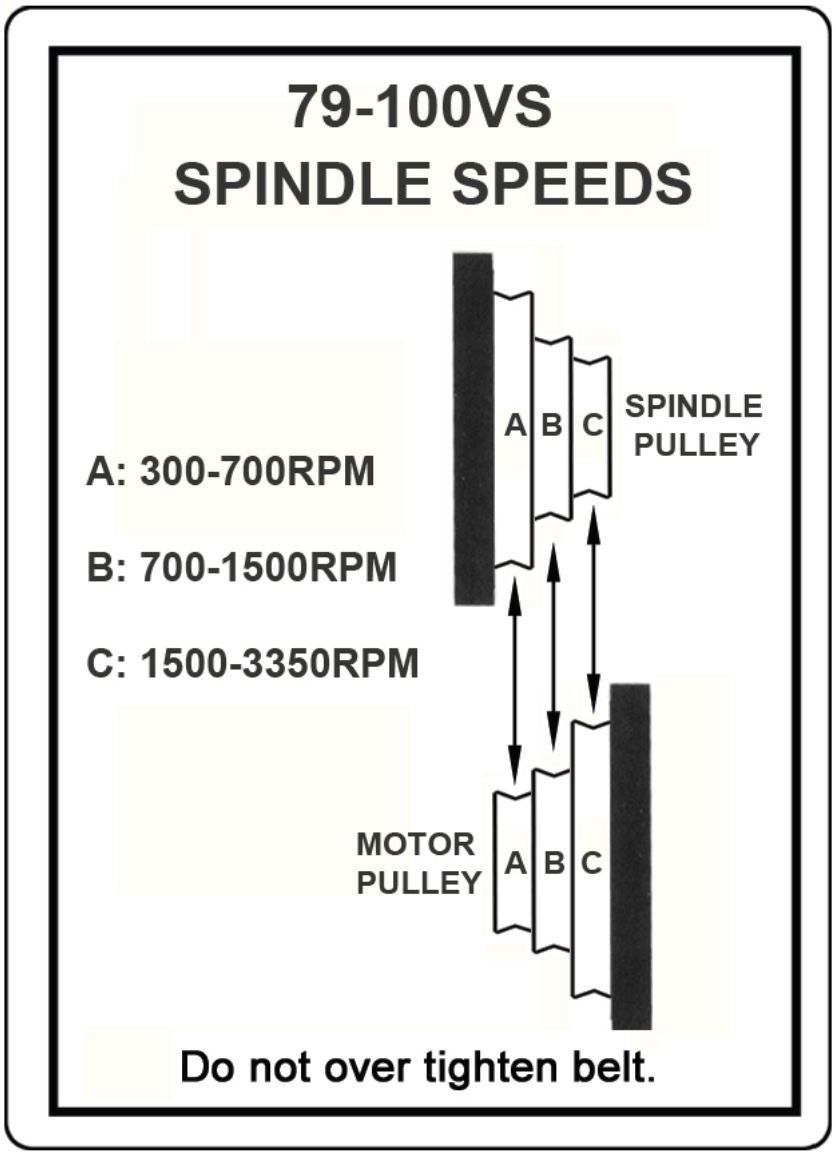
1. Do not operate this machine until you have read all of the following instructions.
2. Do not attempt to operate this machine until it is completely assembled.
3. Do not turn ON this machine if any pieces are missing.
4. If you are not familiar with the operation of the machine, obtain assistance from a qualified person.
5. It is highly recommended that this machine be firmly mounted to a flat and secure work surface.
6. Always wear protective eyewear prior to operating this machine.
7. Do not operate this machine if you are under the influence of drugs and/or alcohol.
8. Remove all jewelry prior to operating this machine.
9. Do not wear any gloves while operating this machine.
10. Always make sure the power switch is in the OFF position prior to plugging in the machine.
11. Always make sure the power switch is in the OFF position when doing any assembly or setup operation.
12. Always turn the power switch to the OFF position and let the work piece come to a complete stop prior to removal.
13. Use only sharp lathe tools.
14. The use of any accessories or attachments not recommended may cause injury to you and damage your machine.
15. This machine must be properly grounded.
16. When turning between centers, make sure headstock and tailstock are snug against work piece.
17. When face plate turning, rough-cut work piece close to the finished shape before screwing to face plate.
18. Never jam tools into work piece or take too big a cut.

19. Do not operate this machine without following all these instructions.
20. Keep these instructions for future reference.

California Proposition 65 Warning

WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.Your risk from exposure to these chemicals varies, depending on how often you do this type of work. To reduce your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

For more detailed information about California Propostion 65 log onto rikontools.com.



3. Installation

CAUTION

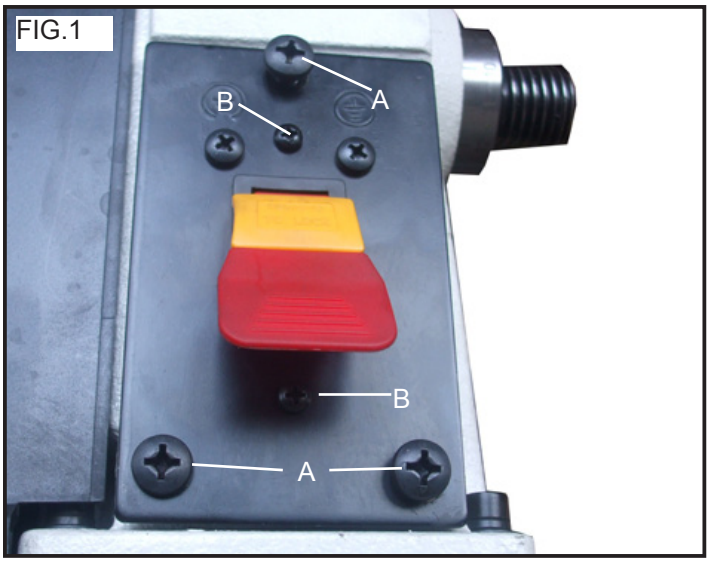
The machine must not be plugged in and the power switch must be in the OFF position until assembly is complete.

3.1 UNINSTALL THE OLD SWITCH PLATE

- Unscrew the three pan head screws (A-FIG.1) to loosen the plate from headstock.

- Unscrew the two small pan head screws (B-FIG.1) to loosen the switch plate from inner black box.

FIG.1

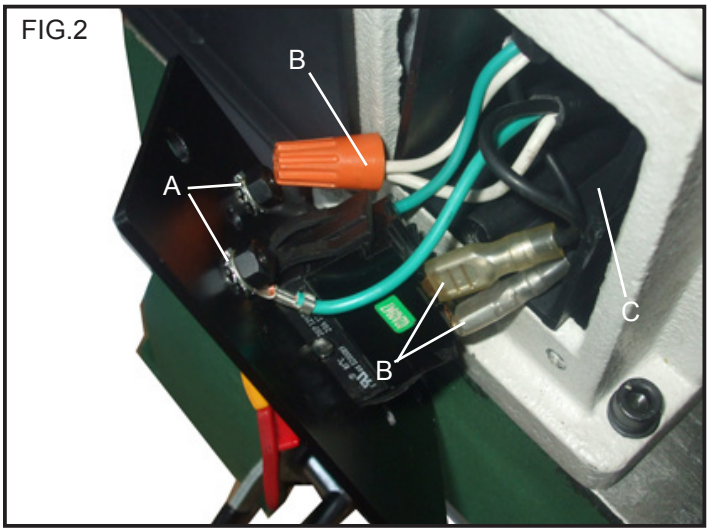


3.2 UNINSTALL THE TERMINALS

- Unscrew the grounding terminal (A-FIG.2) and uninstall other terminals(B-FIG.2).

- Remove the black plastic box (C-FIG.2).

FIG.2



3.3 UNINSTALL STRAIN RELIEF

- Uninstall the two strain relief cord holders on the back of headstock.

FIG.3

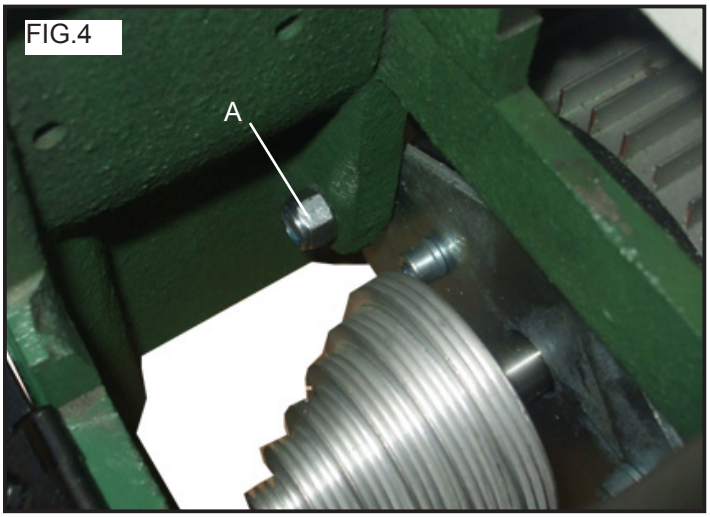
3.4 UNINSTALL BELT AND MOTOR

- Remove spring loaded motor locking handle.

- Uninstall the belt from the lathe.

- Loosen the nylon lock nut (A-FIG.4) using a 13MM wrench then remove motor.

FIG.4

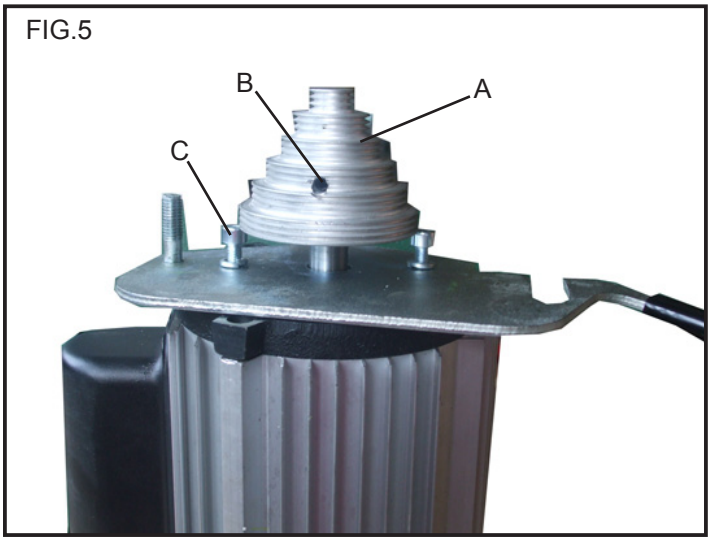


3.5 UNINSTALL THE OLD MOTOR PULLEY AND MOUNTING PLATE

- To remove the motor pulley (A-FIG.5) loosen the socket screw (B-FIG.5) with a 3mm L wrench.

- Loosen the two large socket head screws (C-FIG.5) with 5mm L wrench, then lift the mounting plate off the motor shaft.

FIG.5



3.6 INSTALL MOUNTING PLATE AND NEW MOTOR PULLEY TO NEW MOTOR

- Install the mounting plate (B-FIG.6) to the new motor, and lock the socket head screw (D-FIG.6) with 5mm L wrench.

CAUTION: Pay attention to the direction of the mounting plate compared with the new motor.

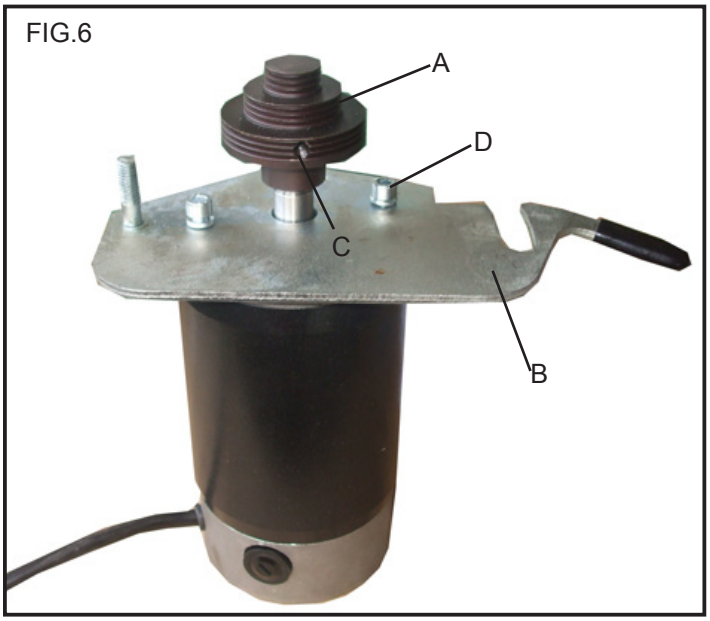
- Install the new motor pulley (A-FIG.6) to the new motor, and lock the socket screw (C-FIG.6) with 3mm L wrench.

CAUTION: Please install the new motor pulley carefully. Do not use excessive force avoiding breaking the new motor pulley or damaging the motor shaft.

- Thread new motor cable through the rubber grommet in bed casting then into the bottom hole in the strain relief plate.

- Install the new motor assembly to your mini lathe as the chart 3.4 shown

FIG.6



3.7 UNINSTALL OLD SPINDLE PULLEY

- Engage the spindle lock to stop spindle from rotating.

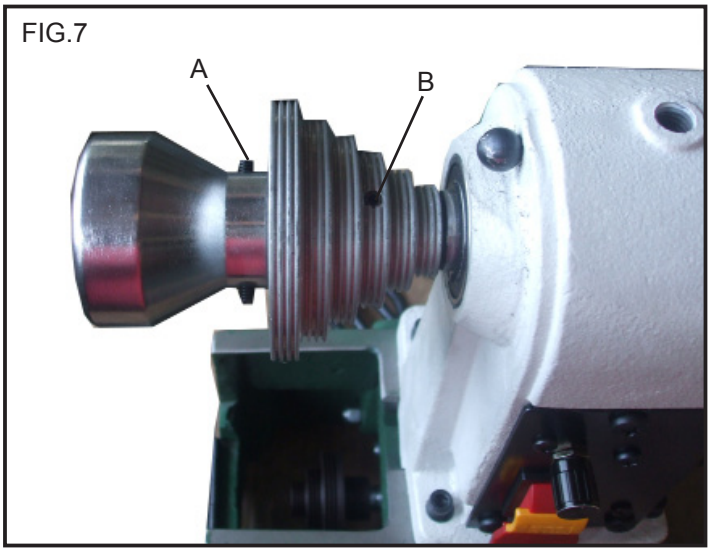
- Unscrew the socket screw (A-FIG.7) to take out handle.

Note: Handles on older units are threaded onto the shaft end and held into place with one set screw. Loosen set screw and spin handle clockwise (reverse thread).

- Older units use a snap ring to set the handle depth in front of the spindle pulley. Remove snap ring before removing spindle pulley.

- Unscrew the socket screw (B-FIG.7) to take out the old spindle pulley.

FIG.7



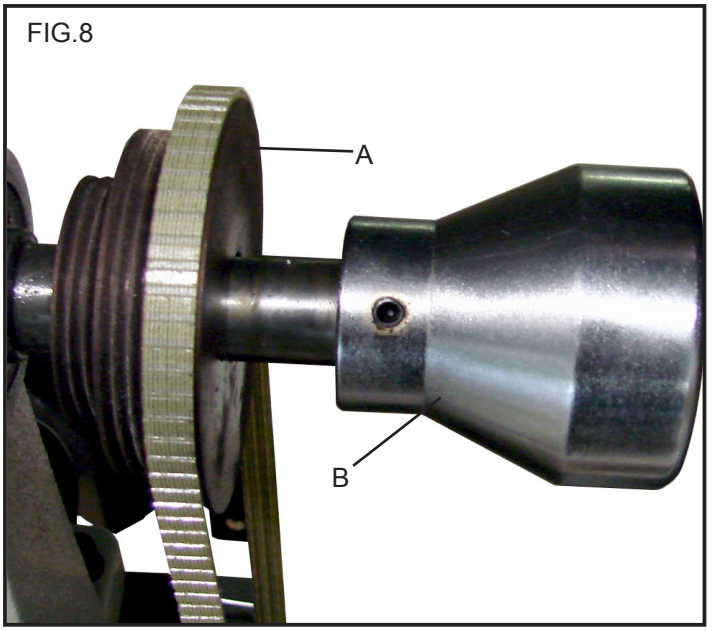
3.8 INSTALL NEW SPINDLE PULLEY

- Slide the new spindle pulley onto the spindle shaft making sure the large pulley is toward the handle end of the spindle. A-FIG.8.

- Use a straight edge or install the drive belt to help align the spindle pulley to the motor pulley. Tighten the two socket screws on the spindle pulley to lock it into position.

- Install the end handle and lock it.

FIG.8



3.9 INSTALL THE NEW PC BOARD BOX

- Remove the PC board from the PC board box by loosening the two phillips head screws (A-FIG.9A).

- Install the cable of new motor according to the old route and slide the cables through the new PC board box (A-FIG.9B).

FIG.9A

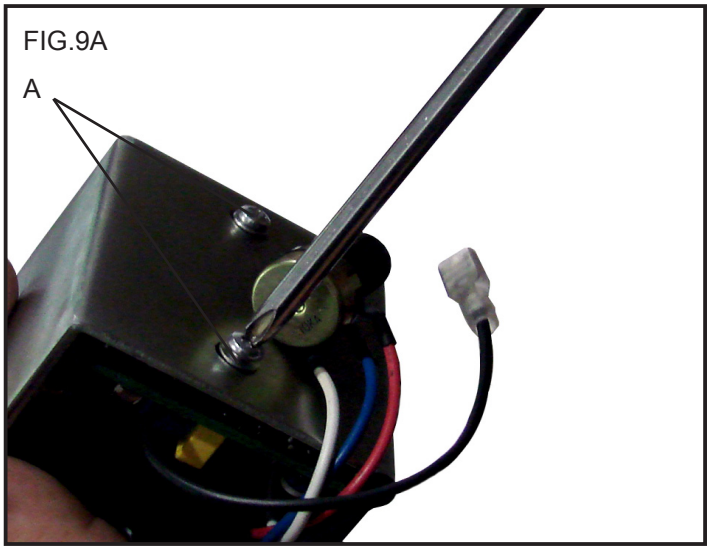
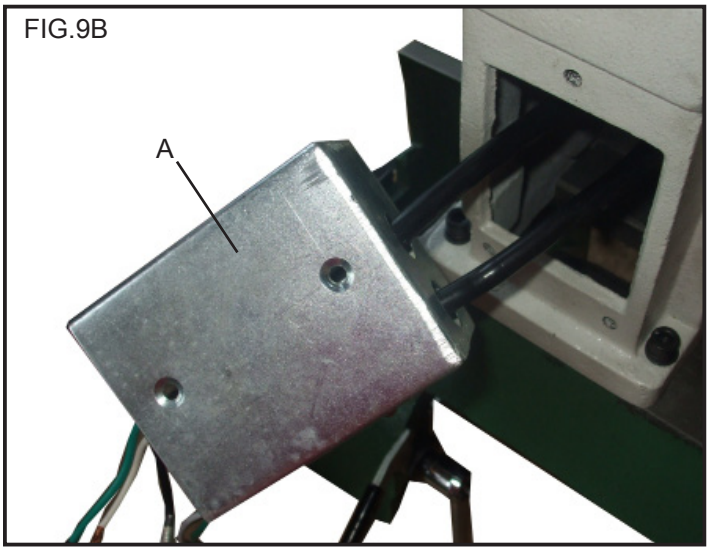


FIG.9B

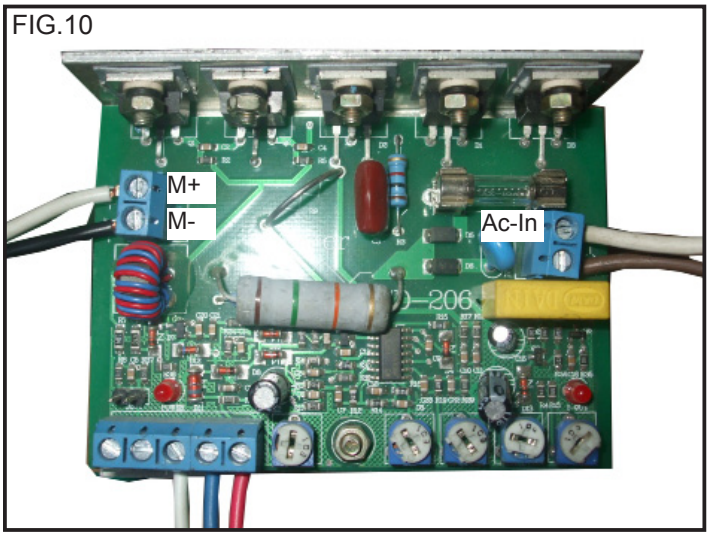


3.10 CONNECT TERMINALS

- Connect the white wire of the motor cable to M+ position, and connect the black wire of the motor cable to M- position.

- Connect the bare copper end of the black wire (white shown for clarity) of the power cable to the AC-IN position. Note: It is necessary to trim the bare copper wire leaving 1/4" exposed.

FIG.10



3.11 INSTALL PC BOARD TO BOX

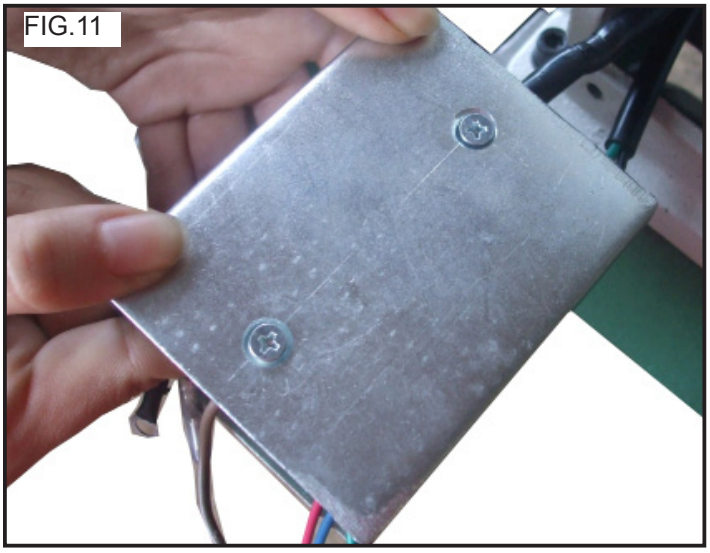
- Install the PC board to new box as shown in FIG.11.

- Slide the PC board box into into the lathe head.

- Due variations in casting and powdercoat thickness it may be necessary to enlarge the switch box opening slightly.

Note: On some units it may be necessary to remove the strain relief plate on the rear of the headstock to prevent the wires from being pinched to allow clearance as the PC board box is installed.

FIG.11



3.12 INSTALL NEW SWITCH PLATE

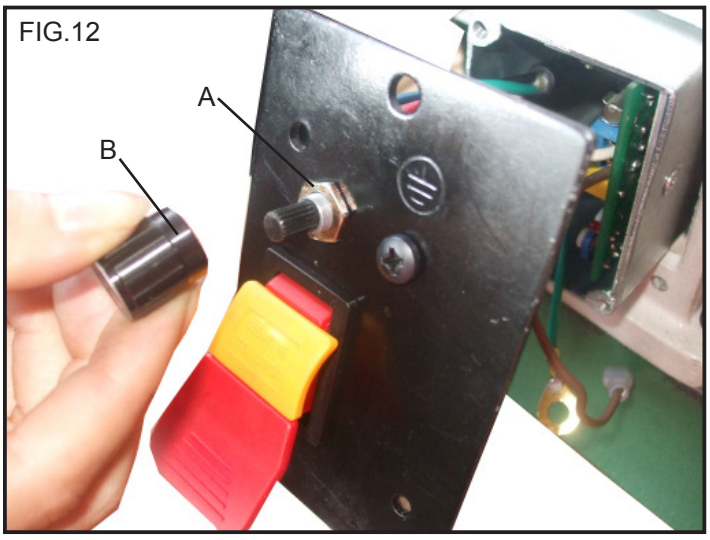
- Uninstall the switch from old switch plate.

- Install the switch into the new switch plate.

- Install the speed control knob into the new plate and lock it with nut (A-FIG.12).

- Install the knob cap (B-FIG.12).

FIG.12

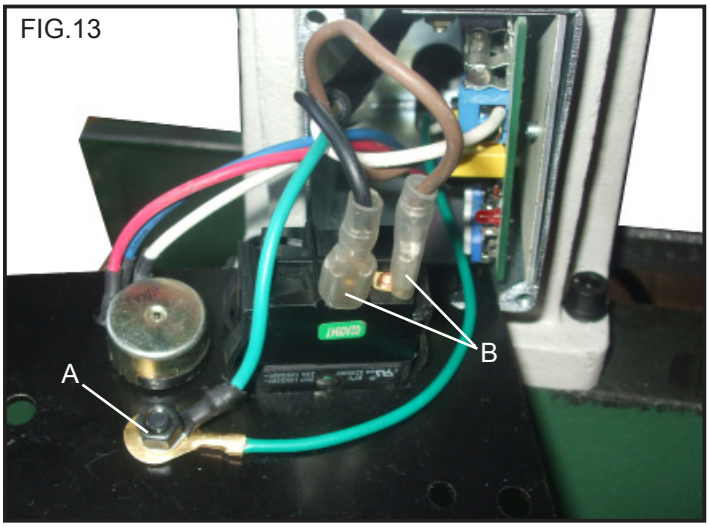


3.13 WIRE CONNECTION TO SWITCH

- Mount the green wire of the motor cable and power cable to the grounding screw (A-FIG.13) on the switch plate.

- Insert the black and white switch terminals (B-FIG.13) to the two switch terminal posts. The wires can be mounted on either switch terminal post without the fear of crossing them.

FIG.13



3.14 INSTALL SWITCH PLATE TO HEADSTOCK

- Install the switch plate to headstock as shown in FIG.1.

- Install the two strain relief cord holders on the back of headstock as shown in FIG.3.

RIKON
POWER TOOLS

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The card must be entirely completed in order for it to be valid. If you have any questions please contact us at 877-884-5167 or email us at warranty@rikontools.com.

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